REMARKS/ARGUMENTS

Claims 1-20 were presented and examined. The Office Action indicated objections to informalities in the specification. The Office Action required correction of one sheet of the drawings. The Office Action indicated a 35 USC § 112, second paragraph rejection of claim 19. The Office Action rejected claims 1-5, 7-11, 13, 15, 17, 18, and 20 under 35 USC § 103(a), as being unpatentable over Yuasa (USPN 6,085,238) in view of Ganz (USPN 6,049,549). The Office Action rejected claims 6, 12, 14, 16, 19 under 35 USC § 103(a), as being unpatentable over Yuasa in view of Ganz and official notice taken. In this response, Applicant has amended claims 3, 5, 8, 10-13, 15, and 19. Claims 1-20 remain pending.

Specification Objections

The Office Action indicated objections to informalities in the specification as filed. In response, Applicant has amended the specification as indicated above to address the objections noted in the Office Action and to correct additional typographical and grammatical errors in the specification as originally filed.

Drawing Objections

The Office Action required correction the drawing sheet containing FIG. 5. In response, Applicant has submitted with this response a proposed replacement sheet and an annotated sheet showing changes. FIG. 5 has been amended in the replacement sheet by correcting the misspelled word "protocol" in block 502.

Claim rejections under 35 USC § 112, Second Paragraph

The Office Action indicated a rejection of claim 19 under Section 112, second paragraph as indefinite. In response, Applicant has amended the claim to address the antecedent problem noted by the Examiner.

Claim rejections under 35 USC § 103(a)

The Office Action rejected claims 1-5, 7-11, 13, 15, 17, 18, 20 under Section 103(a) as unpatentable over Yuasa in view of Ganz.

With respect to the rejection of independent claim 1 and its dependent claims, Applicant respectfully traverses the rejection because the cited references do not teach or suggest all of the limitations of independent claim 1.

Neither Yuasa nor Ganz teaches or suggests the use of a low level polling request as a means for periodically transmitting management information to a first (management) server as recited in claim 1. The Office Action acknowledges that Yuasa does not mention low level polling. Supporting the rejection of independent claim 1, the Office Action states that Ganz discloses the use of a low level polling communication protocol. The Office Action then concludes that it would have been obvious to combine Yuasa and Ganz "because Ganz's use of a NIC card...to poll low-level messages would facilitate a management server to manage other servers on the network. The low level messages can be easily sent from one device to another device that can help gather information from remote devices, as suggested by Ganz." In response, Applicant would submit that, while Ganz does describe a polling mechanism for use in implementing a MAC layer, the polling referred to by Ganz is functionally distinct from the polling of claim 1. Ganz does not describe the use of low-level polling to initiate transmission of buffered management information stored on a second server as recited in claim 1. Nor does Ganz suggest, contrary to the conclusion reached in the Office Action, the use of low level polling messages to help gather information from remote devices.

Ganz is concerned with wireless LANs and the manner in which access to the wireless media is controlled. Ganz includes the following comparison of wired LAN's and wireless LAN's:

> Wireless networks typically use a similar software architecture as wired networks. A multi-layer communication protocol "stack," such as the OSI reference model, is used to implement communications over the WLAN. In current LANs, as in WLANs, the media access control (MAC) layer is responsible for access control of the communication medium. *It is the MAC layer, between the communication protocols above the physical layer, that differs most between wired and wireless networks*. Yuasa at Column 1, lines 25-33 (emphasis added).

Thus, Ganz teaches that the media access layer of wired and wireless networks are significantly different due to power, bandwidth, and other limitations of wireless communication. Ganz then describes various approaches for controlling media access in wireless networks. Ganz describes,

for example, CSMA/CA and other approaches for controlling access to the wireless media in a wireless local area network. Ganz then describes how polling is a possible alternative media access control technique and goes on to describe a MAC module that includes a polling manager and a resource manager for use in a wireless LAN. See, Ganz, Summary of the Invention.

Applicant would respectfully submit that Ganz's polling is fundamentally different from the polling of claim 1. The polling in Ganz refers to the basic control mechanism for accessing the wireless medium. As such, the polling described by Ganz, is contrasted with other wireless MAC techniques such as TDMA, CDMA, etc. The polling messages sent by the arbiter in Ganz are permission to send (PTS) messages that merely grant a particular network device access to the wireless media. The arbiter of Ganz does not use these PTS messages to gather information from remote devices, but instead to inform a network device that it is free to communicate with another network device.

Polling as used in claim 1, in sharp contrast, refers to a process of periodically prompting the second server (the application server) to send management information, buffered in its NIC, to the management server.[1] Whereas polling described by Ganz refers to the fundamental mechanism by which network devices obtain access to a wireless network, polling as used in claim 1 has nothing to do with the media access control mechanism itself. If, for example, the invention recited in claim 1 were implemented on a network according to Ganz, there would be two distinct and independent types of polling. At the level of polling contemplated by claim 1, a management server would be periodically prompting the application servers for their management information. The manner in which these periodic prompts from the management server would obtain access to the media in a wireless LAN implementation according to Ganz involves the polling to which Ganz speaks.

The polling described by Ganz is a media access technique that has beneficial attributes in the context of wireless networks. The association between polling and the low level (i.e., media access layer) recited in claim 1 refers to invention's beneficial technique of implementing the management information prompts as low level frames to simplify and improve the efficiency

[1] To emphasize the distinction between the polling contemplated by Ganz and the mechanism of the present invention, Applicant has amended claim 8 and its dependent claims to recite "prompting" in lieu of "polling."

of the protocol processing (thereby conserving network bandwidth). The polling recited in claim 1 does not limit the manner in which messages acquire access to the network medium.

Moreover, claim 1 recites that the first server polls the second server and, in response, the second server sends its buffered management information back to the first server. In other words the initiator of the polling request is the recipient of the response prompted by the request. This limitation is not taught or suggested by the cited references. The polling scheme in Ganz includes an arbiter station polling (issuing a PTS message to) another network station to grant the network station permission to transmit data. The network station, assuming it has data to transfer, then transfers data to a receiving station. The receiving station then sends an acknowledgement that informs the arbiter that it can proceed to the next station. Ganz at column 7 lines 30-43. This distinction between the network recited in claim 1 and the network of Ganz further emphasizes the differences in the respective polling schemes. Whereas the polling of claim 1 is a technique by which the first server requests information, the arbiter of Ganz uses polling to unilaterally inform the network stations of when they are permitted to access the network.

Because the polling limitation of claim 1 is unrelated to the polling described by Ganz, Applicant would submit that the polling recited in independent claim 1 is not taught or suggested by the cited references. A Section 103 rejection is appropriate only if the cited references teach or suggest all of the claim limitations. MPEP 2143. Accordingly, because Yuasa and Ganz fail to disclose or suggest the use of low level polling to transfer management information (or any kind of data, such as management data, generated by application level code) as recited in claim 1, Applicant would respectfully request the Examiner to reconsider and withdraw the rejection of claim 1 and all claims that depend on claim 1.

With respect to independent claim 8 and its dependent claims, independent claim 15 and its dependent claims, and claim 5 as amended, Applicant has responded to the Section 103(a) rejection by amending to recite a feature of the invention in which the messages used to transfer management information are formatted unconventionally in that they include a MAC header, but no other communication protocol header (e.g., no IP header and no TCP header). Whereas conventional packet formatting appends a MAC header onto the header fields of the overlying

network protocol layers, the present invention recites a packet formatting protocol in which the MAC header is the exclusive header.

This feature of the present invention is neither taught nor suggested by the cited references. Yuasa describes a switch suitable for implementing virtual LAN's and virtual groups (i.e., LAN's and groups that are not necessarily connected to a common switch or hub). Yuasa indicates that virtual LANs had previously been implemented by adding an additional header to a conventional packet. See, e.g., Yuasa at column 7, lines 15-20. Yuasa describes the implementation of virtual LANs and groups "with no extra header or tag added to a packet" as its contribution to the field. Yuasa at column 7, lines 20-25. Thus, whereas amended independent claims 8 and 15 recite a packet that includes a MAC header and no other head, Yuasa is merely teaching the it is unnecessary to add an additional header (i.e., a header in addition the MAC header, network header, and so forth). Similarly, Ganz clearly implies that the packets transmitted via the polled MAC network are conventional packets that include high level headers and protocols as well as MAC headers. See. e.g., Ganz at column 6, lines 12-20.

Thus, neither of the cited references teach or suggest implementing a packet that incorporates a standard MAC header but omits the higher level headers. The present invention, by delegating management information transmission entirely to the server NIC cards, is able to make beneficial use of these special purpose packets. Because these packets have only a single header, protocol processing efficiency is improved and less resources are consumed transmitting management information. Because this limitation is neither taught nor suggested by the cited references, Applicant would respectfully request the Examiner to reconsider and withdraw the Section 103(a) rejection of claim 5, 8, 15, and all claims dependent thereon.

In this response, Applicant has addressed the objections to the specification and drawings, claim rejections under 35 USC § 112, second paragraph, and claim rejections under 35 USC § 103(a). Accordingly, Applicant believes that this response constitutes a complete response to each of the issues raised in the office action. In light of the amendments made herein and the accompanying remarks, Applicant believes that the pending claims are in condition for allowance. Accordingly, Applicant would request the Examiner to withdraw the rejections, allow the pending claims, and advance the application to issue. If the Examiner has any

questions, comments, or suggestions, the undersigned attorney would welcome and encourage a telephone conference at 512.428.9872.

Respectfully submitted,

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Attachments

OIPE JUL 30 2004 PATENT & TRADEMARK OFFICE

Applicant: Rawson
Serial 09/779,358 Docket No. AUS920000516US1
Contact: J. Lally 512/428-9870
Annotated sheet showing changes for Sheet 4 of 7

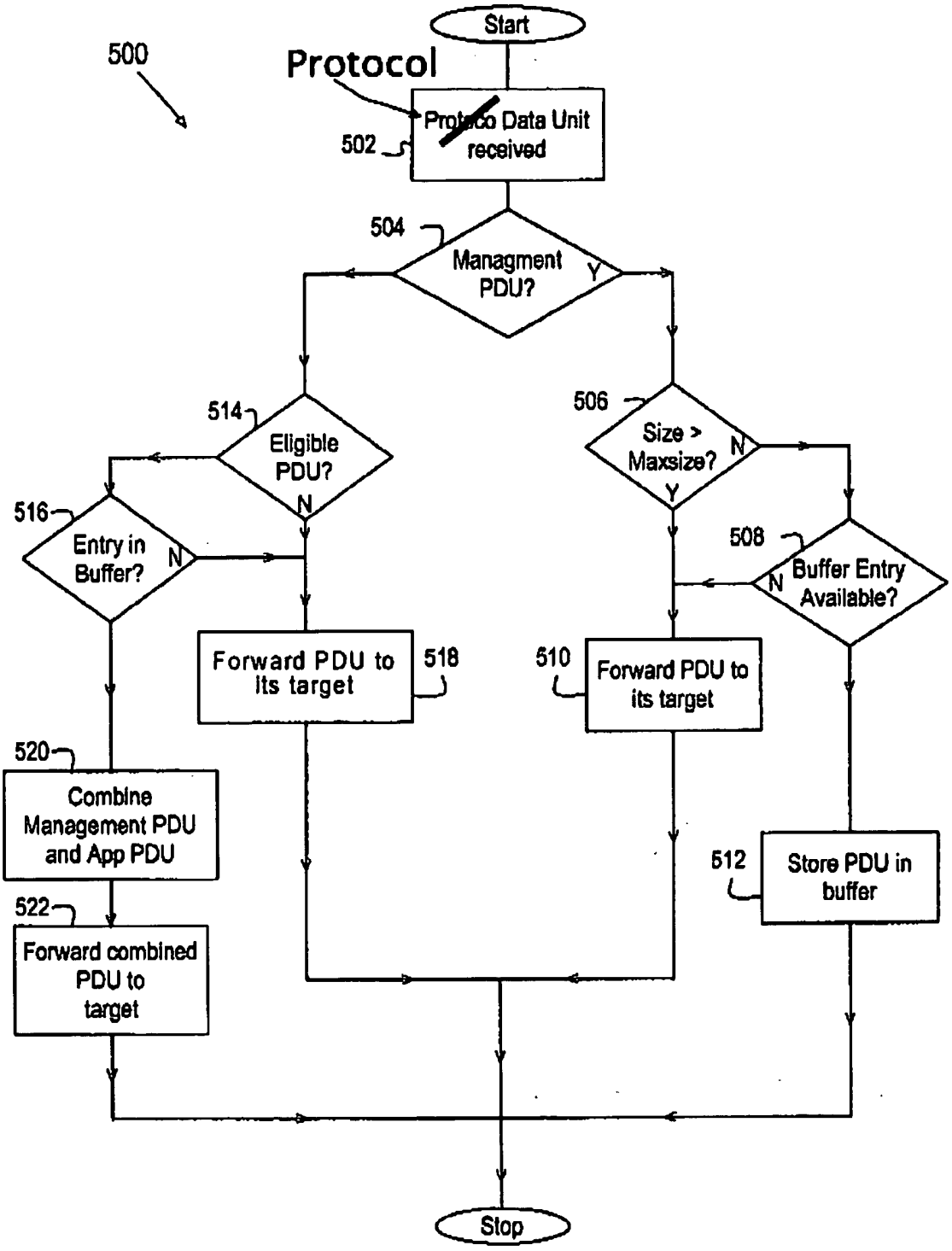

FIG. 5